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taken were not very tempting ones for such a purpose. Mr. Hind has, however, deduced three places from them. They are as below:—

	Berlin M.T.	R.A.	Decl.
		° ′	° ′
1818.	Feb. 23·312	31 12	−15 12
	25·312	34 43	16 43
	27·312	38 14	−18 16

"From *these* places, as a first approximation, I have observed the following elements:—

T	Feb. 7·434	Berlin M. T.
☊	250°4′·0	
π	95 7·0	
I.	20 2·4	
Log. *q*	9·86526	Motion direct.

"As the original observations were involved in a little mystery from some supposed errors, Mr. Hind says he will enter more fully on the subject, when the *corrected* elements are finished, which shall be as early as I can possibly find time for. The elements are almost identical with those of a comet which appeared in 1772, supposed to have been the comet of Biela. Probably it will prove an apparition of that body. I will work out two orbits, and take the mean, as there are four observations."

Bright Satellites of Uranus. (Nos. II. and IV. of Herschel I.)

Observations by Mr. Lassell, with the 20-foot Equatoreal Reflector.

		Greenwich M.T.	Position.	Distance.	Obs.
1849.		h m s	° ′	″	
Nov. 15	IV.	11 13 30·5	3 29		3
	IV.	58 52·3		45·24	3
	II.	11 26 1·5	293 32		3
	II.	51 52·2		23·50	3

Occultations of Stars by the Moon observed at Ashurst

(51° 15′ 58″ N. lat., 0^h 1^m 10^s W. long.) By Mr. Snow.

			Ashurst M.T.		
1849.			h m s		
Dec. 3	33 Ceti	Imm.	4 58 12·0	Dark L. not certain.	
27	1526 B.A.C.	Imm.	4 56 58·3	Dark L. very good.	
1850. Mar. 27	γ Virginis, 1st star	Imm.	12 49 47·5	Bright L.	
	2d star	Imm.	51·5	—	contact.
		—	52·5	—	disappearance.
	Both stars	Em.	14 0 5·5	2d L.	

The stars emerged simultaneously.*

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* Mr. Snow gives a diagram of the occultation, and states the angle of position of the double star to be, roughly, 177°·5, and the distance about 3″.

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"Both of the stars composing the double star *γ Virginis*, at immersion as well as at emersion, disappeared and reappeared slowly, like planetary bodies. In the case of the first star (the one of the two components that first reached the moon's limb), I am not sure whether I noted down its first contact or its final disappearance. But, as also was the case with its companion star, it occupied about 1^s, or a little longer, in disappearing: not that the stars merely *clung* to the moon's limb, and then suddenly disappeared, but they disappeared *gradually;* and at one instant were seen fairly dichotomised, just as would have been the case with a planetary disk. In the case of the second star, both its first contact with the moon's limb, as well as its final disappearance, was noted, as above, and presented phenomena of *gradual disappearance*, precisely similar to those presented by the first star. Beyond this, neither star, at immersion or at emersion, was seen to suffer the slightest change either of colour or magnitude; and the absolute equality of the two components was throughout very striking. The instrument used was the 5-foot equatoreal, with clock-work movement, &c. The power employed was 245, which separated the stars very beautifully: so fine was the night, that with this power the limb of the full moon was singularly well defined and steady. The stars emerged nearly together, the line joining their centres being nearly a tangent to the moon's limb; and they reappeared in *contact* with the edge of the *illuminated* portion of the disk. The moon had passed her full, though only by 2^h. The night was frosty, perfectly serene and calm, with admirable definition; and every circumstance as favourable as possible during this most interesting occultation.

"I was carefully on the watch on the 15th and 16th of April for the occultations of *Aldebaran* and of 119 and 120 *Tauri*, but was completely baffled by the bad weather."

Observations of γ Virginis. By Mr. Hartnup, with the Liverpool 8½-inch Equatoreal Achromatic.

Parallel Wire Micrometer; Power 288.

Epoch.	Position. ° ′	Weight.	Distance. ″	Weight.	No. Obs.
1850·299	177 9	6	2·82	6	10
1850·302	176 8	3	3·02	3	10
1850·310	175 53	6	2·94	6	10
1850·304	176 26	15	2·91	15	30

Double-image Micrometer; Power 261.

Epoch.	Position. ° ′	Weight.	Distance. ″	Weight.	No. Obs.
1850·292	178 13	4	2·80	4	10
1850·299	178 57	5	2·91	5	10
1850·302	178 33	3	2·93	3	10
1850·298	178 36	12	2·88	12	30

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